What is claimed is:

1. A system, comprising:

a power source having a first voltage signal having a first frequency;

at least one power-consuming load;

a first transformer set comprising a delta-delta transformer, and a first voltage controller electrically coupled in series to said delta-delta transformer, said first transformer set having an input and an output, wherein said input of said first transformer set is electrically coupled to said power source to receive said first voltage signal and produce a second voltage signal having a second frequency, and wherein said output of said first transformer set is coupled to said at least one power-consuming load; and

a second transformer set comprising a wye-delta transformer, and a second voltage controller electrically coupled in series to said wye-delta transformer, said second transformer set having an input and an output, wherein said input of said second transformer set is electrically coupled to said power source to receive said first voltage signal, and wherein said output of said second transformer set is coupled to said at least one power-consuming load, and wherein said wye-delta transformer causes a phase shift to said first frequency of said first voltage signal such that said second transformer set produces a third voltage signal having a third frequency, said third frequency being out of phase with respect to said second frequency;

wherein said second transformer set and said first transformer set are coupled in an electrical parallel configuration such that said second voltage signal and said third voltage signal combine to produce a fourth voltage signal having a fourth frequency at said at least one power-consuming load.

2. The power supply system of claim 1, wherein said first transformer set further comprises a first switch for electrically disconnecting said power source from said at least one power consuming load through said first transformer set, and wherein said second transformer set further comprises a second switch for electrically disconnecting said power source from said at least one power consuming load through said second transformer set.

3. The power supply system of claim 1, wherein said first voltage controller of said first transformer set causes said second voltage signal to be half-wave rectified, and wherein said second voltage controller of said second transformer set causes said third voltage signal to be half-wave rectified.

4. A system, comprising:

a power source having a first voltage signal having a first frequency;

at least one power-consuming load device;

a first transformer group comprising a first delta-delta transformer electrically coupled in series to a first voltage controller, and a first wye-delta transformer electrically coupled in series to a second voltage controller, said first delta-delta transformer and said first voltage controller connected in an electrical parallel configuration to said first wye-delta transformer and said second voltage controller, said first transformer group having an input and an output, wherein said input of said first transformer group is electrically coupled to said power source and said output of said first transformer group is electrically coupled to said at least one power-consuming load, said first transformer group receives said first voltage signal and produces a second voltage signal having a second frequency; and

a second transformer group comprising a second delta-delta transformer electrically coupled in series to a third voltage controller, and a second wye-delta transformer electrically coupled in series to a fourth voltage controller, said second delta-delta transformer and said third voltage controller connected

in an electrical parallel configuration to said second wye-delta transformer and said fourth voltage controller, wherein said second transformer group has an input and output, said input of said second transformer group is coupled to said power source and said output of said second transformer group is electrically coupled to said at least one power-consuming load, and wherein said second transformer group produces a third voltage signal having a third frequency based on said first voltage signal, and wherein said second transformer group is further electrically coupled in series to a phase-shifter that causes said third frequency to be phase-shifted with respect to said second frequency;

wherein said first transformer group is connected in an electrical parallel configuration to said second transformer group and said phase-shifter such that said second voltage signal and said third voltage signal combine to produce a fourth voltage signal having a fourth frequency.

5. The power supply system of claim 4, wherein said first transformer group further comprises a first switch for electrically disconnecting said power source from said at least one power consuming load through said first transformer group, and wherein said second transformer group further comprises a second switch for electrically disconnecting said power source from said at least one power consuming load through said second transformer group.

6. The power supply system of claim 4, wherein said first voltage controller and said second voltage controller of said first transformer group cause said second voltage signal to be half-wave rectified, and wherein said third voltage controller and said fourth voltage controller of said second transformer group cause said third voltage signal to be half-wave rectified.